

Santa Fe Energy Company



Central Division-Rocky Mountain District
Security Life Building
Suite 2600
Denver, Colorado 80202-4330
303/825-5101

November 11, 1986

RECEIVED
NOV 13 1986

OVERNIGHT MAIL

**DIVISION OF
OIL, GAS & MINING**

Utah Oil, Gas and Mining Division
355 West North Temple
3 Tri-Ad, Suite 350
Salt Lake City, Utah 84180

Attention: Ron Firth

Re: Township 38 South - Range 25 East
Section 25: SE/4
San Juan County, Utah

Gentlemen:

Pursuant to the provisions of Rule 302.1 of the Oil and Gas Conservation General Rules, Santa Fe Energy Company hereby makes application for administrative approval of a well location as an exception to Rule 302. Santa Fe desires to drill the well in the following location:

Township 38 South - Range 25 East
Section 25: 1400' FSL, 1150' FEL

The target in this case is an algal mound buildup in the Ismay and Desert Creek formations as mapped from seismic data in our possession. Placing a well at the Rule 302 location would cause us to miss the mound entirely. Also, the proposed location is close to one of the seismic line shot points, which gives us the best control in order to maximize our chances of a productive well.

Names of the owners of lands within a 460-foot radius of the proposed location are:

MCOR Oil & Gas Corporation
5718 Westheimer
Houston, Texas 77057

BHP Petroleum (Americas), Inc.
5613 DTC Parkway, Suite 600
Englewood, Colorado 80111

Total Petroleum, Inc.
Post Office Box 500
Denver, Colorado 80201

Utah Oil, Gas and Mining Division
November 12, 1986
Page 2

A plat is attached showing Rule 302 locations, the requested exception location, and that no other wells have been drilled in the quarter-section. The land is not under an order of the Board establishing oil or gas well drilling units and is thus under the statewide 40-acre spacing rule.

Correspondence requesting approval of the exception location has been sent to the parties listed above and their responses will be sent to you as soon as they are received.

Santa Fe desires to commence this well in 1986. Please feel free to call the undersigned collect if there is any question or if any additional information is needed.

Thank you.

Very truly yours,

SANTA FE ENERGY COMPANY

A handwritten signature in dark ink, appearing to read "A. D. Wild", written in a cursive style.

Alan D. Wild
Senior Landman

ADW:dle
L2:aw04

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN TRIPLICATE*
(Other instructions on
reverse side)

U-56534

5. Lease Designation and Serial No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. Type of Well

Oil
Well ☒Gas
Well ☐Other ☐Single
Zone ☐Multiple
Zone ☐

2. Name of Operator

SANTA FE ENERGY OPERATING PARTNERS, L.P.

3. Address of Operator

1616 Glenarm Place, Ste 1600, Denver, CO 80202

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface

1400' FSL & 1150' FEL, Section 25

At proposed prod. zone

Desert Creek @ 5650'

NE/SE

6. If Indian, Allottee or Tribe Name

7. Unit Agreement Name

8. Farm or Lease Name

FEDERAL

9. Well No.

#1-25

10. Field and Pool, or Wildcat

Wildcat UNDESIGNATED

11. Sec., T., R., M., or Blk.
and Survey or Area

Sec 25 T38S-R25E

14. Distance in miles and direction from nearest town or post office*

Approximately 26 miles SW of Pleasant View, Colorado

12. County or Parrish

San Juan

13. State

Utah

15. Distance from proposed*

location to nearest
property or lease line, ft.
(Also to nearest drlg. line, if any)

1150'

16. No. of acres in lease

160

17. No. of acres assigned
to this well

160

18. Distance from proposed location*
to nearest well, drilling, completed,
or applied for, on this lease, ft.

--

19. Proposed depth

5650'

Desert
Creek

20. Rotary or cable tools

Rotary

21. Elevations (Show whether DF, RT, GR, etc.)

5066' Ground

22. Approx. date work will start*

December 15, 1986

23.

PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12-1/4"	8-5/8"	24#	2000'	Circulate
7-7/8"	5-1/2"	15.5#	5650'	350 sxs

Permission requested to drill a Desert Creek test in San Juan County, Utah. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per Bureau of Land Management and the State of Utah's requirements.

Onshore Oil & Gas Order #1 w/attachments.

RECEIVED
NOV 17 1986

DIVISION OF
OIL, GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

Signed

JACK H. WHITE

Title Dist. Drilling Supt.

Date 11/13/86

(This space for Federal or State office use)

Permit No.

43-037-31294

Approval Date

APPROVED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

Approved by

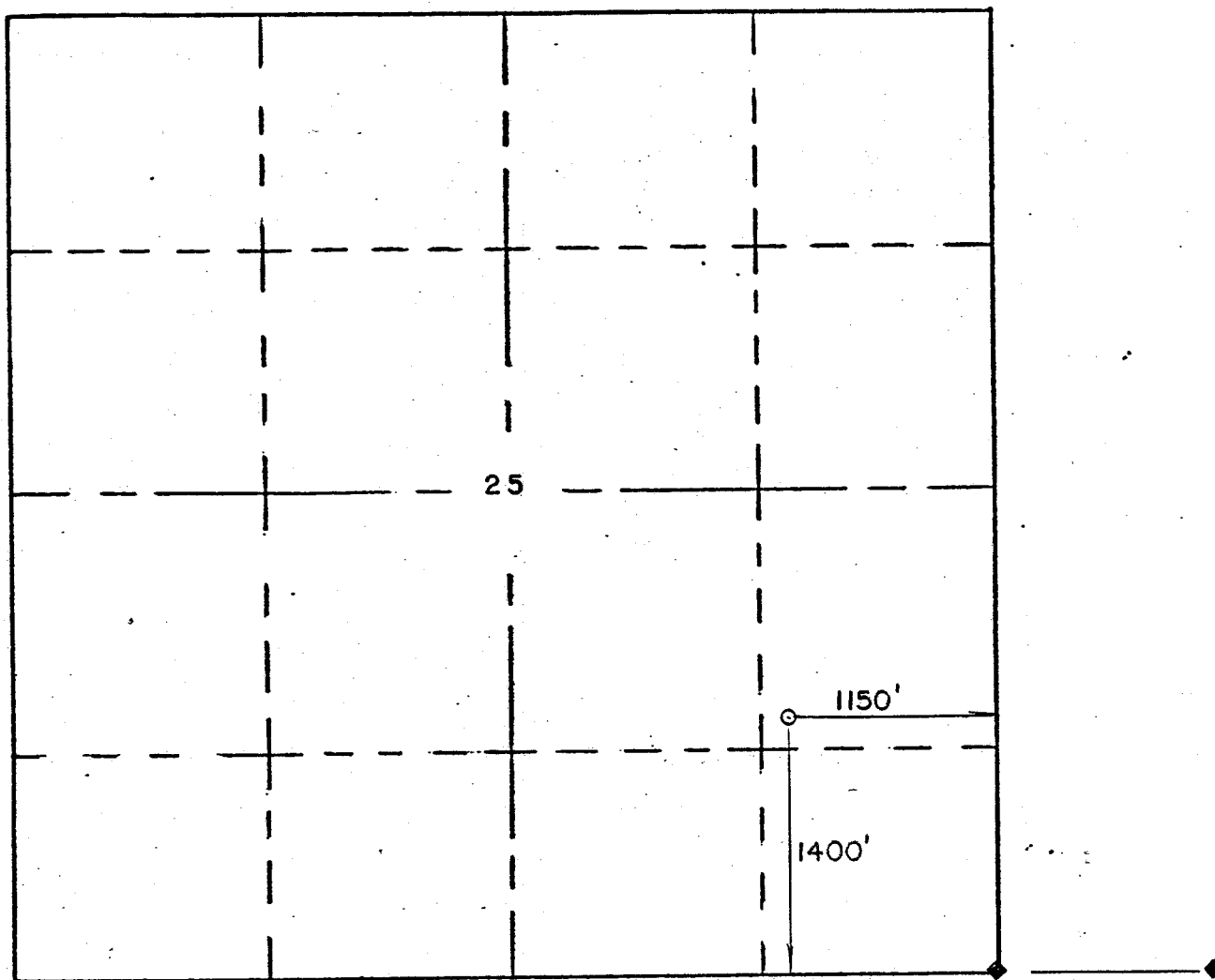
Title

Conditions of approval, if any:

DATE: 12-3-86
BY: [Signature]
WELL SPACING: 302.1

*See Instructions On Reverse Side

WELL LOCATION PLAT

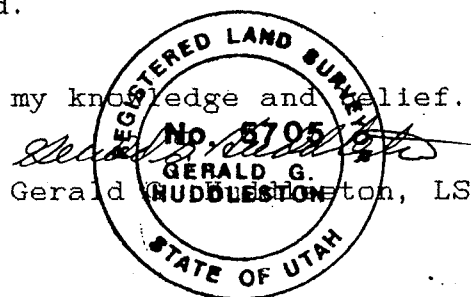


WELL LOCATION DESCRIPTION:

SANTA FE ENERGY CO. LP
FEDERAL 1-25
1400' FSL & 1150' FEL
Section 25, T.38 S., R.25 E., SLM
San Juan County, Utah
5066' grd. elevation
Reference: East 520', 5084' grd.

The above plat is true and correct to my knowledge and belief.

11-04-'86



~~120408~~
120408

OPERATOR Santa Fe Energy Operating Partners, L.P. DATE 11-18-86

WELL NAME Federal 1-25

SEC NE SE 25 T 38S R 25E COUNTY San Juan

43-037-31294

API NUMBER

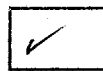
Fed

TYPE OF LEASE

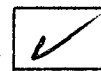
CHECK OFF:



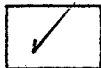
PLAT



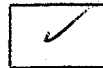
BOND



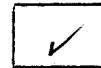
NEAREST
WELL



LEASE



FIELD



POTASH OR
OIL SHALE

PROCESSING COMMENTS:

No other well within 920'

Need water permit

Env. loc. requested

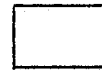
APPROVAL LETTER:

SPACING:



203

UNIT



302



CAUSE NO. & DATE



302.1

STIPULATIONS:

1. Water

Santa Fe Energy Company



Central Division-Rocky Mountain District
Security Life Building
Suite 2600
Denver, Colorado 80202-4330
303/825-5101

November 11, 1986

RECEIVED
NOV 25 1986

BHP Petroleum (Americas), Inc.
5613 DTC Parkway, Suite 600
Englewood, Colorado 80111

**DIVISION OF
OIL, GAS & MINING**

Attention: Jerry Bair

Re: S.E. Tincup Prospect
San Juan County, Utah

Gentlemen:

In confirmation of previous correspondence and conversations, Santa Fe Energy Company plans to build the location for the Initial Test Well at the following location:

Township 38 South - Range 25 East
Section 25: 1400' FSL, 1150' FEL

Since this will be an exception location under the location and siting rules of the State of Utah, we request that you indicate that you have no objection by executing and returning the enclosed copy of this letter as soon as possible. Thank you.

Yours very truly,

Alan D. Wild
Senior Landman

ADW:dle
L2:aw05

ABOVE LOCATION APPROVED THIS 17th day of November, 1986

BHP PETROLEUM (AMERICAS), INC.

By: Bernard A. White

Santa Fe Energy Company



Central Division-Rocky Mountain District
Security Life Building
Suite 2600
Denver, Colorado 80202-4330
303/825-5101

November 11, 1986

RECEIVED
NOV 25 1986
DIVISION OF
OIL, GAS & MINING

Total Petroleum, Inc.
Post Office Box 500
Denver, Colorado 80201

Attention: Ralph Pool

Re: S.E. Tincup Prospect
San Juan County, Utah

Gentlemen:

In confirmation of previous correspondence and conversations, Santa Fe Energy Company plans to build the location for the Initial Test Well at the following location:

Township 38 South - Range 25 East
Section 25: 1400' FSL, 1150' FEL

Since this will be an exception location under the location and siting rules of the State of Utah, we request that you indicate that you have no objection by executing and returning the enclosed copy of this letter as soon as possible. Thank you.

Yours very truly,

Alan D. Wild
Senior Landman

ADW:dle
L2:aw05

ABOVE LOCATION APPROVED THIS 13th day of November, 1986

TOTAL PETROLEUM, INC.

By: 

A. L. Sternett, District Landman

Santa Fe Energy Company



Central Division-Rocky Mountain District
Security Life Building
Suite 2600
Denver, Colorado 80202-4330
303/825-5101

November 12, 1986

RECEIVED
NOV 25 1986
DIVISION OF
OIL, GAS & MINING

MCOR Oil & Gas Corporation
5718 Westheimer
Houston, TX 77057

Attention: Robin Scanlan

Re: S.E. Tincup Prospect
San Juan County, Utah

Gentlemen:

In confirmation of previous correspondence and conversations, Santa Fe Energy Company plans to build the location for the Initial Test Well at the following location:

Township 38 South - Range 25 East
Section 25: 1400' FSL, 1150' FEL

Since this will be an exception location under the location and siting rules of the State of Utah, we request that you indicate that you have no objection by executing and returning the enclosed copy of this letter as soon as possible. Thank you.

Yours very truly,

Alan D. Wild
Senior Landman

ADW:dle
L2:aw05

ABOVE LOCATION APPROVED THIS 20 day of November, 1986

MCOR OIL & GAS CORPORATION

By:

Jim C. Roth, Vice President

DESIGNATION OF OPERATOR

The undersigned is, on the records of the Bureau of Land Management, holder of lease

DISTRICT LAND OFFICE: Monticello, Utah 84535
SERIAL NO.: U-56534

RECEIVED
NOV 25 1986

and hereby designates

DIVISION OF
OIL, GAS & MINING

NAME: Santa Fe Energy Company
ADDRESS: 1616 Glenarm Place, Suite 2600
Denver, Colorado 80202

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Operating Regulations with respect to (describe acreage to which this designation is applicable):

Township 38 South - Range 25 East
Section 25: N/2 SE/4, SE/4 SE/4
San Juan County, Utah

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The lessee agrees promptly to notify the supervisor of any change in the designated operator.

BHP PETROLEUM (AMERICAS) INC.

Bernard A. Wirth
(Signature of lessee)

By: Bernard A. Wirth, Attorney-in-Fact
5613 DTC Parkway, Suite 600
Englewood, CO 80111

(Address)

11/17/86
(Date)

DESIGNATION OF OPERATOR

The undersigned is, on the records of the Bureau of Land Management, holder of lease

DISTRICT LAND OFFICE: Monticello, Utah 84535
SERIAL No.: U-56534

RECEIVED
NOV 25 1986

and hereby designates

DIVISION OF
OIL, GAS & MINING

NAME: Santa Fe Energy Company
ADDRESS: 1616 Glenarm Place, Suite 2600
Denver, Colorado 80202

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Operating Regulations with respect to (describe acreage to which this designation is applicable):

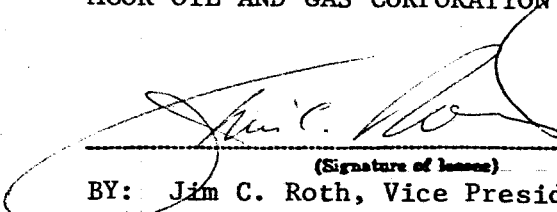
Township 38 South-Range 25 East
Section 25: N/2 SE/4, SE/4 SE/4
San Juan County, Utah

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The lessee agrees promptly to notify the supervisor of any change in the designated operator.

MCOR OIL AND GAS CORPORATION


(Signature of lessee)
BY: Jim C. Roth, Vice President
5718 Westheimer
Houston, TX 77057

11/20/86
(Date)

(Address)

DESIGNATION OF OPERATOR

The undersigned is, on the records of the Bureau of Land Management, holder of lease

DISTRICT LAND OFFICE: Monticello, Utah 84535
SERIAL NO.: U-56534

RECEIVED
NOV 25 1986

and hereby designates

NAME: Santa Fe Energy Company
ADDRESS: 1616 Glenarm Place, Suite 2600
Denver, Colorado 80202

DIVISION OF
OIL, GAS & MINING

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Operating Regulations with respect to (describe acreage to which this designation is applicable):

Township 38 South - Range 25 East
Section 25: SE/4
San Juan County, Utah

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The lessee agrees promptly to notify the supervisor of any change in the designated operator.

TOTAL PETROLEUM, INC.



(Signature of lessee)

WARD M. CLARK
VICE PRESIDENT

By:
999 - 18th Street, Suite 3100
Denver, CO 80202

(Address)

11/12/86
(Date)

K26E

5760

5605

R26E

200

McCOR
2-19
5730

3-19

19-1

McCULLOCH
2-20 Fed.

5672

1-20

5685

CHAMBERS
10-19

MARA
1-23
5810

3-26

150

4-26

1-25 175

McCOR

1-25
5660

1321

200

1301

120

150

530

110

175

3-25

McCOR
1-36
5708

MFS
1 State
2-36
5684

P28 Po

175

36

1 State

200

125

101

150

175

1261

1241

450

37

400

T
38
S



SANTA FE ENERGY COMPANY
ROCKY MOUNTAIN DISTRICT
DENVER, COLORADO

S.E. Tincup Prospect San Juan
COUNTY
UTAH

□ Rule 302 locations
(400' window)

● Requested exception loc.
(1400' FSL, 1150' FEL)

101
BC
2-2

Santa Fe Energy Company



Central Division-Rocky Mountain District
Security Life Building
Suite 2600
Denver, Colorado 80202-4330
303/825-5101

November 24, 1986

UPS Overnight #1030 8676 664

Utah Oil & Gas Mining Division
355 West North Temple
3 Tri-Ad, Suite 350
Salt Lake City, UT 84180

Attention: Ron Firth

RECEIVED
NOV 25 1986

**DIVISION OF
OIL, GAS & MINING**

Re: Township 38 South, Range 25 East
Section 25: SE/4
San Juan County, UT

Gentlemen:

Santa Fe Energy Company by letter dated November 11, 1986 made application for administrative approval of a well location as an exception to Rule 302 in the following location:

Township 38 South, Range 25 East
Section 25: 1400' FSL, 1150' FEL

Enclosed herewith please find letters which have been executed by the owners of land within a 460 foot radius of the proposed location indicating that they have no objections to this location.

As to your inquiry regarding our filing of an Application to Drill with the state, this was done under a separate letter and you should now have copies of these.

If I can be of any further assistance, please advise.

Yours very truly,

Duke W. Roush
District Land Manager

DWR/dw
Encls.
RS:uog

Santa Fe Energy Operating Partners, L.P.
Federal #1-25
1400' FSL & 1150' FE
Section 25 T38S-R25E
San Juan Co., Utah

DRILLING PROGRAM

ONSHORE OIL & GAS ORDER NO. 1
Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

All leases and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Order No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

1. The estimated tops of important geologic markers are as follows:
Ground elevation @ 5066'.

<u>Formation</u>	<u>Depth</u>
Cutler	2285'
Hermosa	4220'
Upper Ismay	5240'
Lower Ismay	5450'
Upper Desert Creek	5510'
Lower Desert Creek	5565'
Lower Desert Creek "B"	5580'
Salt	5645'
T.D.	5650'

2. a. The estimated depths at which the water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
Water	Navajo	1200'
Oil & High Pressure Gas	Desert Creek	5510'

No known mineral deposits are anticipated or will be penetrated.

- b. Santa Fe Energy Operating Partners L.P. plans to protect all surface fresh water zones by running a sufficient amount of 8-5/8" long surface casing.
3. Santa Fe Energy Operating Partners L.P. minimum specifications for pressure control equipment are as follows:

Equipment will be tested prior to drilling out from under surface casing and operational checks will be made daily thereafter. Blind and Pipe Rams will be tested to their rated working pressure, casing and head to 70% at the interval yield pressure. BOP's will be tested prior to drilling out of each casing shoe and at least every 30 days. The BOP will also have manual controls. A manifold and choke will be tested at its rated working pressure also.

4. a. The proposed casing program will be as follows:

<u>Purpose</u>	<u>Depth</u>	<u>Hole Size</u>	<u>O.D.</u>	<u>Weight</u>	<u>Grade</u>
Surface	2000'	12-1/4"	8-5/8"	24#	K-55
Produc.	5650'	7-7/8"	5-1/2"	15.5#	K-55

All casing strings will be tested to 0.2 psi/ft. or 1000 psi, whichever is greater prior to drilling out.

- b. The cement program will be as follows:

<u>Surface</u>	<u>Type and Amount</u>
2000'	Sufficient to circulate to surface.
<u>Production</u>	<u>Type and Amount</u>
5650'	350 sks or sufficient to cover zones of interest.

- c. Auxiliary equipment to be used is as follows:

Upper and Lower Kelly Cock valves with safety valve for drill pipe on rig floor. Flow sensor and chromatograph by 4000'.

5. a. The proposed circulating mediums to be employed in drilling are as follows:

<u>Interval</u>	<u>Mud Type</u>	<u>Mud Wt.</u>	<u>Vis</u>	<u>F/L</u>	<u>PH</u>
0-2000'	Spud	8.5-10	32-36	N/C	10
2000'-T.D.	Gel-Chemical	8.3-11	32-50	18-6	10

The above mud system will be a Gel-Chemical type with adequate materials of supportive agents and other materials onsite to handle any anticipated down-hole problems as well as possible spills of fuel or oil on surface.

6. The anticipated type and amount of testing, logging and coring are as follows:

- a. One drill stem test will be run in the Desert Creek formation. On site Geologist will have the option to test any hydrocarbon section deemed necessary.
- b. The logging program will consist of the following:
Dual Induction Electric Log, SCP-T.D., Compensated Neutron Density and Caliper Log, minimum 2000'.

8. Abnormal Pressures or Temperatures Expected.

- a. Expected bottom hole pressure is 2180 psi.
- b. Desert Creek may have the potential to blow-out and extreme care will be initiated before entering.

- c. No abnormal temperatures are anticipated.
 - d. Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analysis, well test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4.
8. Other information.
- a. Santa Fe Energy Operating Partners L.P. proposes to spud the Federal #1-25 prior to December 15, 1986, and intends to complete the well within approximately one month after the well has reached T.D.
 - b. It is anticipated the duration of drilling will be 15 days.
 - c. The anticipated completion program is as follows: All hydrocarbon shows will be perforated and tested.
 - d. No well abandonment operations will begin without the prior approval of the District Manager. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the District Manager. A "Subsequent Report of Abandonment" (Form 3160-5), will be filed with the District Manager, within 30 days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface operations.

SURFACE USE PLAN

ONSHORE OIL & GAS ORDER NO. 1
Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

1. Existing Roads

- a. Directions to the location from Colorado are as follows:

From Pleasant View, Colorado proceed southwest on the main traveled county road approximately 22 miles, then proceed north four miles to the location approximately 2000' off county road, to the west.

- b. Improvement to existing roads will not be necessary.
- c. Existing roads and newly constructed roads on surface under the jurisdiction of any Surface Managing Agency shall be maintained in accordance with the standards of the S.M.A.

2. Access Roads to be Constructed and Reconstructed

- a. All new roads to be built, or reconstructed roads are shown on location plat.
- b. Approximately 2000' will be new access. It was centerline flagged at the time of staking.
- c. The maximum grade will be 3%.
- d. The maximum cut on location is 5 feet. The maximum fill is 5 feet.
- e. Drainage will be installed as deemed necessary by the operator and dirt contractor.
- f. Culverts will be installed as deemed necessary by the operator and dirt contractor.
- g. Cattleguards, gates or fence cuts will be as per B.L.M. requirements.
- h. Surfacing material will be placed on the access road and location as deemed necessary by the operator.
- i. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

- j. If there is snow on the ground when construction begins, the operator will remove it before the soil is disturbed, and pile it downhill from the topsoil stockpile location.

3. Location of Existing Wells within a 1-Mile Radius of the Proposed Location.

- a. Water Wells - None.
- b. Injection or Disposal Wells - None.
- c. Producing Wells - None.
- d. Drilling Wells - None.

4. Location of Existing and/or Proposed Facilities if the Well is Productive

- a. A central tank battery will be located at the wellsite if productive.
- b. All flowlines from the well site to battery site will be buried below frost line depth.
- c. A dike will be constructed completely around the production facilities (i.e. production tanks, water tanks, and/or heater-treater). The dikes for the production facilities must be constructed of compacted subsoil, hold the capacity of the largest tank, and be independent of the back cut. Any production pits will be fenced with at least four (4) strands of barbed wire and held in place by side posts and corner H-braces.
- d. Production facilities (including dikes) will be placed on the cut portion of the location.
- e. All access roads will be upgraded and maintained as necessary to prevent erosion and accomodate year-round traffic.
- f. Any necessary pits will be fenced to prevent wildlife entry.
- g. Produced waste water will be confined to an unlined pit for a period not to exceed 90 days after initial production. During that 90 day period an application for approval of a permanent disposal method and location (NTL-2B), along with the required water analysis will be submitted.
- h. All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to.

5. Location and Type of Water Supply

- a. The water will be purchased from the nearest source.
- b. Water will be hauled to the location along the approved access route.
- c. The source of water is located on B.L.M. lands.
- d. No water wells are to be drilled.

6. Construction Materials

- a. Surface and subsoil materials in the immediate area will be utilized.
- b. No construction materials will be removed from Federal lands.
- c. Gravel, stone and sand will be purchased from a commercial source.
- d. Any materials to be used which are under BLM jurisdiction shall be approved in advance, as per CFR 3610.2-3.

7. Methods for Handling Waste Material

- a. Drill cuttings are to be contained and buried in the reserve pit.
- b. Garbage and nonflammable waste are to be contained in the trash pit. Flammable waste is to be contained in the burn pit. The trash is to be burned periodically and the remains buried when the well is completed. The trash and/or burn pit will be totally enclosed on four sides and 3/4 of the top will small mesh wire to prevent wind scattering and wildlife entry. After the burn pit is no longer in use it will be covered with a minimum of 4 feet of earth. No trash is to be placed in the reserve pit.
- c. Any slats and/or chemicals which are an integral part of the drilling system will be disposed of in the same manner as the drilling fluid.
- d. If a chemical porta-toilet is not furnished with the drilling rig, a sewage borehole will be used and its contents covered with a minimum of 6 feet of fill upon well completion.
- e. The produced fluids will be produced into a test tank until such time as construction of production facilities is completed. Any spills of oil, gas salt water or other produced fluids will be cleaned up and removed.
- f. The reserve pit and drilling fluids contained in the pit will be allowed to dry. The pit will then be backfilled.

8. Ancillary Facilities

No camps, airstrips or other facilities will be necessary.

9. Wellsite Layouts

- a. The rig layout is shown on Diagram.
- b. A cross section of the well pad and cuts and fills are shown on Diagram.
- c. The location of reserve, burn pits, access roads onto the pad, turn around areas, parking areas, living facilities, soil material stockpiles and orientation of the rig with respect to the pad and other facilities is shown on Diagram.
- d. The reserve pit will be fenced on three (3) sides during drilling and the fourth side will be fenced at the time the rig is removed.

10. Plans for Reclamation of the Surface

The following surface reclamation will be done upon completion of the operations.

- a. The reserve pit, when dry, will be backfilled and the entire location will be reshaped to as near as possible its original contour.
- b. No alteration of the drainage will be necessary due to the location of the reserve pit.
- c. Topsoil and subsoil will be segregated and stockpiled near the location.
- d. During reclamation of the site, the operator will push fill material into the cuts and up over the backslope to approximate the original topography. No depressions will be left that trap water or form ponds.
- e. Waste materials will be disposed of as stated in #7 of this Surface Use Plan.
- f. Re-seeding will be done as per the Bureau of Land Management's requirements.
- g. Those areas not required for production will be landscaped to the surrounding topography.
- h. A Notice of Intent to Abandon and a Subsequent Report of Abandonment will be submitted for abandonment approval.

11. Surface Ownership

Wellsite - Bureau of Land Management
Moab, Utah

Roads - Roads are maintained by the County or are on lands owned by the Bureau of Land Management.

12. Other Information

- a. Archaeology study by Abajo Archaeology enclosed.
- b. If any cultural values are observed during construction and operations, they will be left intact and the Area Manager in Durango, Colorado (303) 247-4082 will be notified.
- c. If paleontological resources, either large and conspicuous, and/or of significant scientific value are discovered during construction, the find will be reported to the Authorized Officer immediately. Construction will be suspended within 250 feet of said find. An evaluation of the paleontological discovery will be made by a BLM approved professional paleontologist within five (5) working days, weather permitting, to determine the appropriate action(s) to prevent the potential loss of any significant paleontological values. Operations within 250 feet of such a discovery will not be resumed until written authorization to proceed is issued by the Authorized Officer. The applicant will bear the cost of any required paleontological appraisals, surface collection of fossils, or salvage of any large conspicuous fossils of significant scientific interest discovered during operations.
- d. "Sundry Notice and Report of Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 32 CFR 3164.
- e. The dirt contractor will be provided with an approved copy of the surface use plan.

13. Lessee's or Operator's Representative and Certification

SANTA FE ENERGY OPERATING PARTNERS/L.P.
1616 Glenarm, Suite 2600
Denver, Colorado 80202
Jack H. White
District Drilling Superintendent
(W) 303/825-5101
(H) 303/424-2859


Santa Fe Energy Operating Partners, L.P.
Federal #1-25
1400' FSL & 1150' F
Section 25 T38S-R25E
San Juan Co., Utah

CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Santa Fe Energy Operating Partners, L.P. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date:

11/12/86

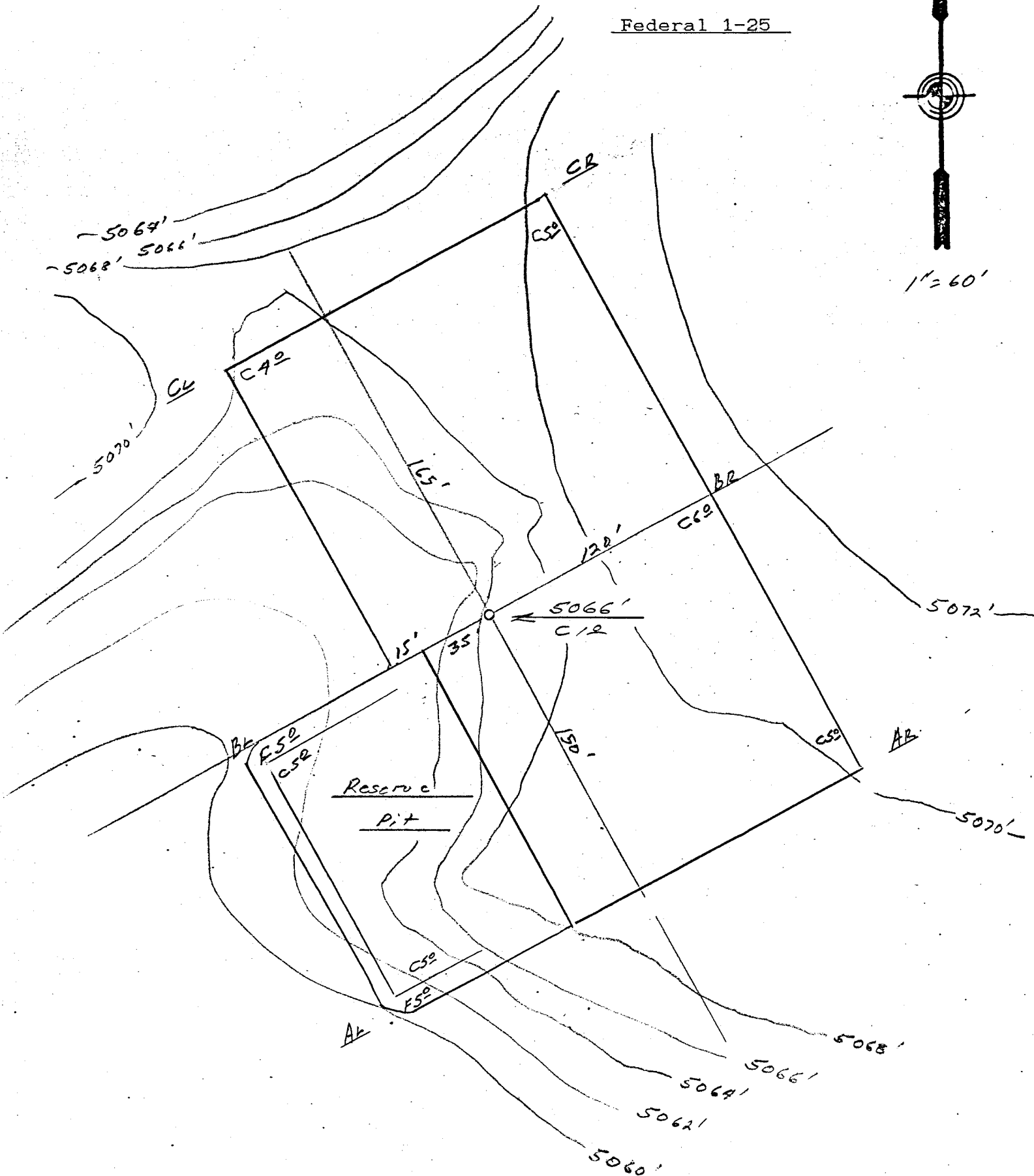

SANTA FE ENERGY OPERATING PARTNERS, L.P.
Jack H. White

WELL PAD PLAN VIEW


Federal 1-25



1" = 60'

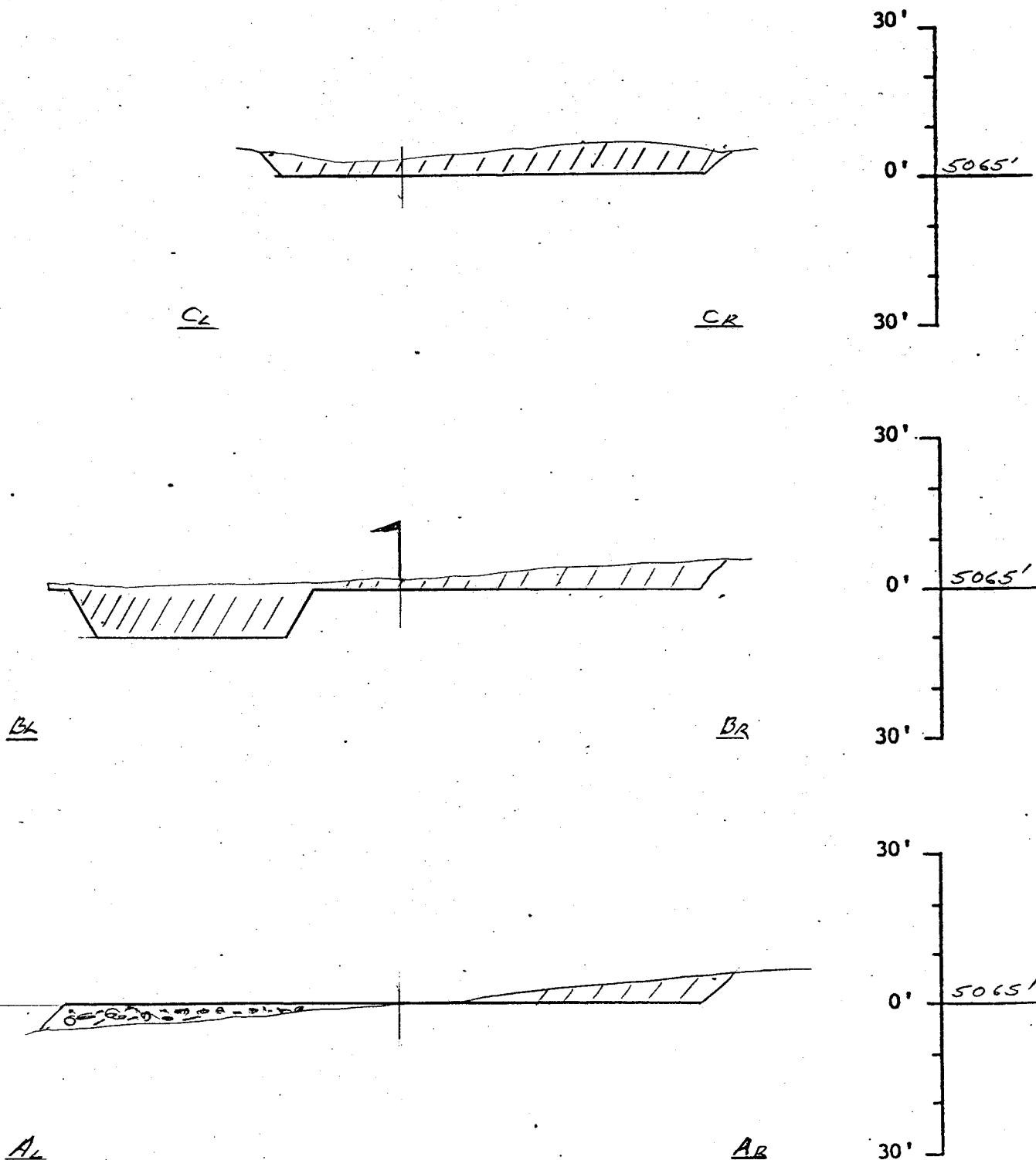


WELL PAD CROSS-SECTION

Cut /////
Fill 

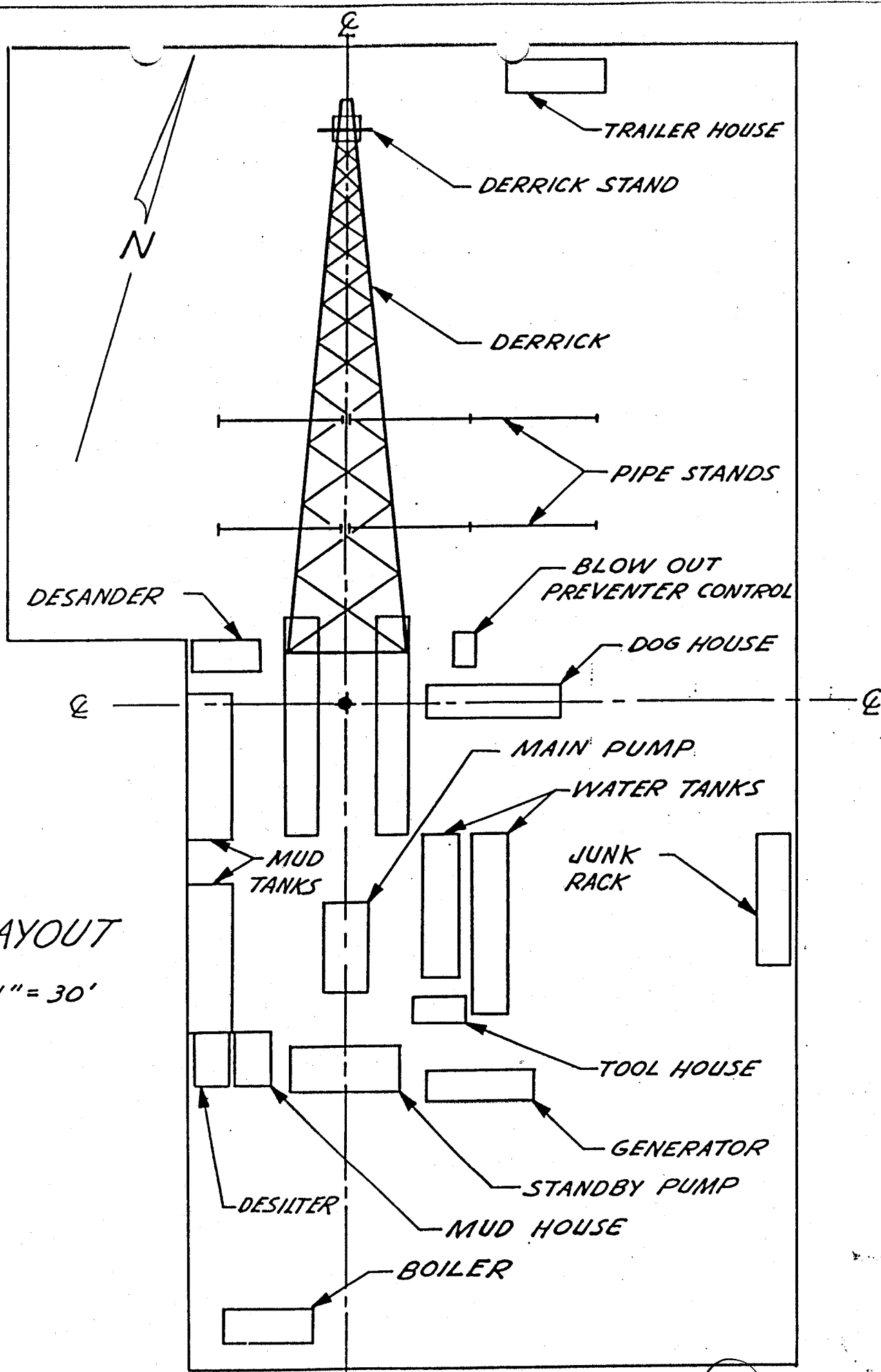
Scales: 1" = 60' H.
1" = 30' V.

Federal 1-25



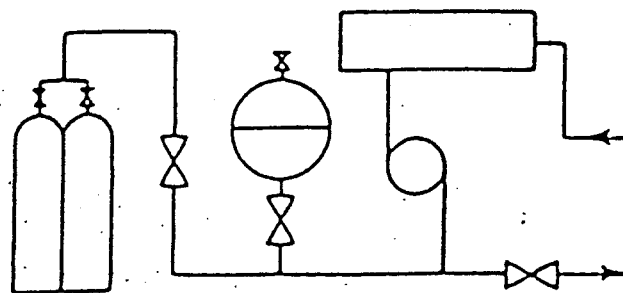
RIG LAYOUT

SCALE: 1" = 30'

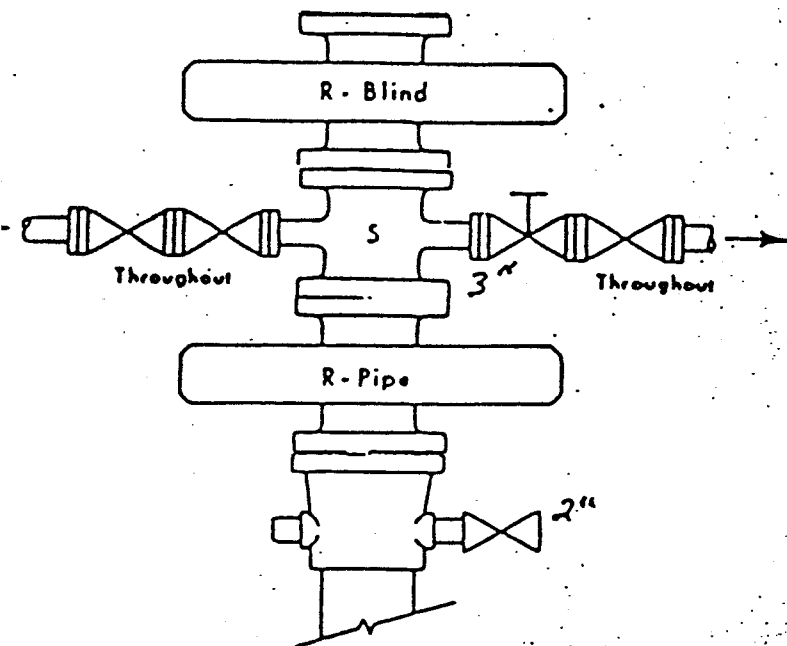


only approximately *(signature)*

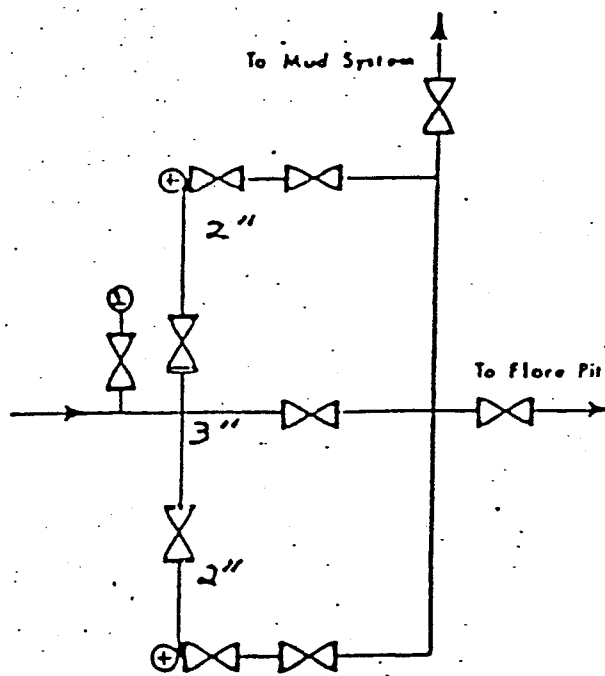
PRESSURE RATING
3,000 psi



ACCUMULATOR SYSTEM



BLOWOUT PREVENTION STACK



Flanged Connections Throughout
MANIFOLD SYSTEM

UNITED STATES
ATOMIC ENERGY COMMISSION

CAJON MESA QUADRANGLE
UTAH-COLORADO
15 MINUTE SERIES (TOPOGRAPHIC)





STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

December 3, 1986

Santa Fe Energy Operating Partners, L. P.
1616 Glenarm Place, Suite 1600
Denver, Colorado 80202

Gentlemen:

Re: Federal 1-25 - NE SE Sec. 25, T. 38S, R. 25E
1400' FSL, 1150' FEL - San Juan County, Utah

Approval to drill the referenced well is hereby granted in accordance with Rule 302.1, Oil and Gas Conservation General Rules, subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water as required by Chapter 3, Title 73, Utah Code Annotated.

In addition, the following actions are necessary to fully comply with this approval:

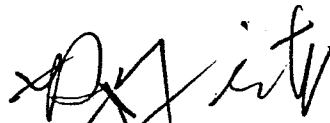
1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal to the Division of completed Form OGC-8-X, Report of Water Encountered During Drilling.
3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or R. J. Firth, Associate Director, (Home) 571-6068.
4. Compliance with the requirements and regulations of Rule 311.3, Associated Gas Flaring, Oil and Gas Conservation General Rules.

Page 2
Santa Fe Energy Operating Partners, L. P.
Federal 1-25
December 3, 1986

5. Prior to commencement of the proposed drilling operations, plans for toilet facilities and the disposal of sanitary waste at the drill site shall be submitted to the local health department having jurisdiction. Any such drilling operations and any subsequent well operations must be conducted in accordance with applicable State and local health department regulations. A list of all local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of General Sanitation, telephone (801) 533-6163.
6. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-037-31294.

Sincerely,



R. J. Firth
Associate Director, Oil & Gas

as
Enclosures
cc: Branch of Fluid Minerals
D. R. Nielson
8159T

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER

SINGLE
ZONE ☐

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

SANTA FE ENERGY OPERATING PARTNERS, L.P.

3. ADDRESS OF OPERATOR

1616 Glenarm Place, Ste. 2600, Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface

1400' FSL & 1150' FEL, Section 25

At proposed prod. zone

Desert Creek @ 5650'

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

Approximately 26 miles SW of Pleasant View, Colorado

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drig. unit line, if any)

1150'

16. NO. OF ACRES IN LEASE

160

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

--

19. PROPOSED DEPTH

5650'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, ET, GR, etc.)

5066' Ground

22. APPROX. DATE WORK WILL START*

by December 15, 1986

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/2"	8-5/8"	24#	2000'	Circulate
7-7/8"	5-1/2"	15.5#	5650'	350 sxs

Permission requested to drill a Desert Creek test in San Juan County, Utah. If productive, casing will be run and well completed. If dry, the well will be plugged and abandoned as per Bureau of Land Management and the State of Utah's requirements.

Onshore Oil & Gas Order #1 w/attachments.

RECEIVED
DEC 04 1986

DIVISION OF
OIL, GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

Jack H. White
Jack H. White

TITLE District Drilling Supt. DATE 11/13/86

(This space for Federal or State office use)

PERMIT NO.

43037 31294

APPROVAL DATE

APPROVED BY

Kenneth V. Rhea

TITLE

Acting DISTRICT MANAGER

DATE

DEC 01 1986

CONDITIONS OF APPROVAL, IF ANY:

FLARING OR VENTING OF
GAS IS SUBJECT TO NTL 4-A
DATED 1/1/80

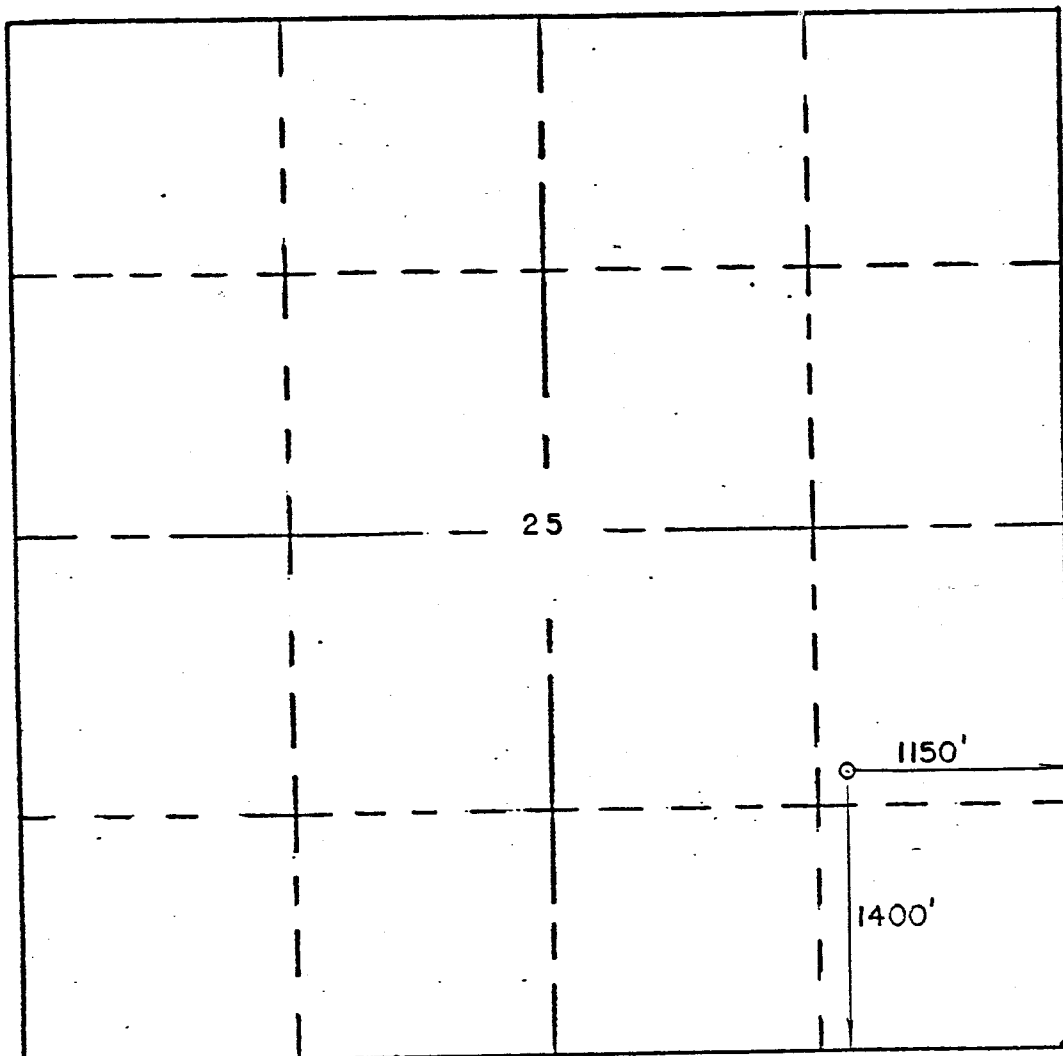
CONDITIONS OF APPROVAL ATTACHED

SUBJECT TO RIGHT OF WAY
APPROVAL

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

WELL LOCATION PLAT

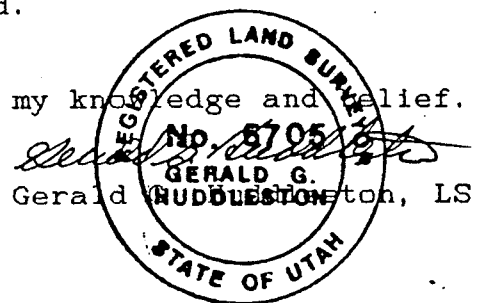


WELL LOCATION DESCRIPTION:

SANTA FE ENERGY CO. LP
FEDERAL 1-25
1400' FSL & 1150' FEL
Section 25, T.38 S., R.25 E., SLM
San Juan County, Utah
5066' grd. elevation
Reference: East 520', 5084' grd.

The above plat is true and correct to my knowledge and belief.

11-04-'86



Santa Fe Energy Operating Partners, L.P.
Well No. Federal 1-25
Sec. 25, T. 38 S., R. 25 E.
San Juan County, Utah
Lease 56534

CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

A. DRILLING PROGRAM

1. The 8-5/8" intermediate casing must be set in the Chinle Formation.
2. The following operations must be witnessed by a BLM representative:
 - a. The cementing of surface csg.
 - b. Testing of B.O.P.E. and csg.
 - c. (Dry Hole) setting and tagging of plug across surface csg. shoe.

Notify the BLM, San Juan Resource Area (Mike Wade) one day or on dry hole as soon as possible, prior to the above operations, at (801) 587-2141.

Alternate Phone Numbers: Mike Wade - Home (801) 587-2026
Greg Noble - Work (801) 259-6111
Home (801) 259-8811

All lease operations will be conducted in full compliance with applicable regulations (43 CFR 3100), Onshore Oil and Gas Order 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions and the approved plan will be made available to the field representative to insure compliance.

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the District Office. If operations are to be suspended, prior approval of the District Office will be obtained and notification given before resumption of operations.

The spud date will be reported orally to the District Office within a minimum of 24 hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the District Office within 24 hours after spudding. If the spudding occurs on a weekend or holiday, the written report will be submitted on the following regular work day.

In accordance with Onshore Order No. 1 this well will be reported on Form 3160-6, "Monthly Report of Operations", starting with the month in which operations commence and continued each month until the well is plugged and abandoned. This report will be sent to the District Office, P.O. Box 970, Moab, Utah 84532.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported to the Area Office in accordance with requirements of NTL-3A.

If a replacement rig is needed for completion operations, a Sundry Notice (Form 3160-5) to that effect will be filed for prior approval from the District Office, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig. In emergency situations verbal approval to bring on a replacement rig will be approved through the District Office.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted to the District Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the Moab District Manager.

If the well is to be completed for production the Area Office is to be contacted in order to set up a pre-production conference. When the well is placed in a producing status the District Office is to be notified by telegram or other written communication within five working days.

Approval to vent/flare gas during initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed 30 days. Approval to vent/flare beyond this initial test period will require District Office approval pursuant to guidelines in NTL-4A.

No well abandonment operation will be commenced without the prior approval of the District Office. In the case of newly-drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the District Office. A Subsequent Report of Abandonment (Form 3160-5) will be sent to the District Office within 30 days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD* or approved abandonment notice has been completed to the satisfaction of the Area Office, or the appropriate surface managing agency. Upon completion of approved plugging, a dry hole marker will be erected in accordance with 43 CFR 3162.6. The top of the marker will be closed or capped. The following minimum information will be permanently placed on the marker; "Fed" or "Ind", as applicable, "Lease number", "Well number", location of well by 1/41/4 section, township, and range.

B. THIRTEEN POINT SURFACE USE PLAN

1. Existing Roads:

a. An encroachment permit will be obtained from the San Juan County Road Dept., (801) 587-2231, ext. 43.

2. Planned Access Roads:

a. The maximum total disturbed width will be 30 feet for 2,000 feet.

b. Maximum grade: 8%

c. Turnouts: As Needed

d. Location (centerline): Flagged

e. Drainage: As Needed

f. Surface Materials: If access is utilized during wet winter weather, road surfacing may be required to prevent road maintenance problems.

g. *ROW needed across Marathon lease roads in Section 25;*

The access road will be water barred or brought to Class III Road Standards within 60 days of dismantling of the drill rig. If this time frame cannot be met, the San Juan Area Manager will be notified so that temporary drainage control can be installed along the access road.

The Class III Road Standards which ensure drainage control over the entire road through the use of natural, rolling topography; ditch turnouts; drainage dips; outsloping; crowning; low water crossings; and culverts will be determined at the appropriate field inspection.

3. Location of Existing Wells: See Map

4. Location of Tank Batteries and Production Facilities:

All permanent (on site for 6 months or longer) above ground facilities (including pump jacks) will be painted a flat,

nonreflective, earthtone color to match the standard environmental colors, as determined by the Rocky Mountain 5-State Interagency Committee. All facilities will be painted within 6 months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The color will be neutral to match trees or soil.

If a tank battery is constructed on this lease, it will be surrounded by a dike of sufficient capacity to contain 1 1/2 times the storage capacity of the battery.

All loading lines will be placed inside the berm surrounding the tank battery.

All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the District Manager.

Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and 500 feet downstream of the meter run or any production facilities. Meter runs will be housed and/or fenced.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place before any deliveries. Tests for meter accuracy will be conducted monthly for the first 3 months on new meter installations and at least quarterly thereafter. The San Juan Area Manager will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the San Juan Area Manager. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.

5. Location and Type of Water Supply:

All water needed for drilling purposes will be obtained from:

Private Source

Use of water for this operation will be approved by obtaining a temporary use permit from the Utah State Engineer, (801) 637-1303 and by receiving permission from the land owner or surface management agency to use the land containing the water source.

6. Methods of Handling Waste Disposal:

The reserve pit (~~will~~/will not) be lined with commercial bentonite sufficient to prevent seepage. At least half of the capacity will be in cut.

Three sides of the reserve pit will be fenced with four strands of barbed wire before drilling starts. The fourth side will be fenced as soon as the drilling is completed. The fence will be kept in good repair while the pit is drying.

A burning permit is required for burning trash between May 1 and October 31. This can be acquired by notifying the San Juan County Sheriff at (801) 587-2237.

Produced waste water will be confined to a (~~lined~~/unlined) pit for a period not to exceed 90 days after initial production. During the 90 day period an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted for the District Manager's approval pursuant to Onshore Oil and Gas Order No. 3 (NTL-2B).

7. Well Site Layout:

The reserve pit will be located: See Diagram

The top 6 inches of soil material will be removed from the location and stockpiled separate from the trees on the NE side. Topsoil along the access will be reserved in place.

Access to the well pad will be from: the south and through Marathon roads in Section 25

8. Reclamation:

- a. The operator/holder or his contractor will contact the San Juan Resource Area office in Monticello, Utah, (801) 587-2141, 48 hours before starting reclamation work that involves earthmoving equipment and upon completion of restoration measures.
- b. The stockpiled topsoil will be spread evenly over the disturbed area. All disturbed areas will be ripped 12 inches deep with the contour.
- c. Water bars will be built as follows to control erosion.

Grade

2%
2-4%
4-5%
5+%

Spacing

Every 200 feet
Every 100 feet
Every 75 feet
Every 50 feet

- d. Seed will be broadcast between October 1 and February 28 with the following prescription. A harrow or similar implement will be dragged over the area to assure seed cover.

4 1bs/acre Indian ricegrass (Oryzopsis hymenoides)
1 1bs/acre Galleta (Hilaria jamesii)
1 1bs/acre crested wheatgrass (Agropyron desertorum)
1 1bs/acre Western wheatgrass (Agropyron smithii)
1 1bs/acre Alkali sacaton (Sporobolus airoides)
1 1bs/acre Sand dropseed (Sporobolus cryptandrus)
2 1bs/acre Fourwing saltbush (Atriplex canescens)
2 1bs/acre Shadscale (Atriplex confertifolia)
1 1bs/acre Green ephedra (Ephedra viridis)
1 1bs/acre Cliffrose (Cowania mexicana)
1 1bs/acre Desert bitterbrush (Purshia glandulosa)
1 1bs/acre Winterfat (Eurotia lanata)
1 1bs/acre Globemallow (Sphaeralcea ambigua)
1 1bs/acre Wild sunflower (Helianthus annuus)
1 1bs/acre

- e. After seeding is complete, the stockpiled trees will be scattered evenly over the disturbed areas. The access will be blocked to prevent vehicular access.
- f. The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed as described in the reclamation section. Enough topsoil will be kept to reclaim the remainder of the location at a future date. This remaining stockpile of topsoil will be seeded in place using the prescribed seed mixture.

9. Other Information: _____

There will be no change from the proposed drilling and/or workover program without prior approval from the District Manager. Safe drilling and operating practices must be used. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.2.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3164.

The dirt contractor will be provided with an approved copy of the surface use plan.

If subsurface cultural materials are exposed during construction, work in that spot will stop immediately and the San Juan Resource Area Office will be contacted. All people who are in the area will be informed by the operator/holder that they are subject to prosecution for disturbing archaeological sites or picking up artifacts. Salvage or excavation of identified archaeological sites will be done by a BLM approved archaeologist only if damage occurs.

This permit will be valid for a period of one year from the date of approval. After permit termination a new application will be filed for approval for any future operations.

121610

DIVISION OF OIL, GAS AND MINING

SPODDING INFORMATION

API #43-037-31294

NAME OF COMPANY: Santa Fe Energy

WELL NAME: Federal 1-25

SECTION NE SE 25 TOWNSHIP 38S RANGE 25E COUNTY San Juan

DRILLING CONTRACTOR Exeter

RIG # 68

SPODDED: DATE 12-12-86

TIME 9:00 PM

HOW Rotary

DRILLING WILL COMMENCE _____

REPORTED BY John McCatharn

TELEPHONE # (303) 825-5101

DATE 12-15-86 SIGNED AS

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. U-56534	
2. NAME OF OPERATOR SANTA FE ENERGY OPERATING PARTNERS, L.P.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
3. ADDRESS OF OPERATOR 1616 Glenarm Place, Ste 2600, Denver, CO 80202		7. UNIT AGREEMENT NAME	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1400' FSL & 1150' FEL, Section 25		8. FARM OR LEASE NAME FEDERAL	
14. PERMIT NO. 43-037-31294		9. WELL NO. #1-25	
15. ELEVATIONS (Show whether OF, RT, OR, etc.) 5066' GL		10. FIELD AND POOL, OR WILDCAT Undesignated	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec 25 T38S-R25E	
		12. COUNTY OR PARISH San Juan	13. STATE Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐PULL OR ALTER CASING ☐FRACTURE TREAT ☐MULTIPLE COMPLETE ☐SHOOT OR ACIDIZE ☐ABANDON* ☐REPAIR WELL ☐CHANGE PLANS ☐

(Other)

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐REPAIRING WELL ☐FRACTURE TREATMENT ☐ALTERING CASING ☐SHOOTING OR ACIDIZING ☐ABANDONMENT* ☐(Other) Drilling Procedures ☒(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

1. Move in & rig up Exeter Rig #68. Spud 17-1/2" hole @ 9:00 P.M. 12/12/86.
2. Drilled 17-1/2" hole to 200', survey: 3/4° @ 160'.
3. Ran 5 jts 13-3/8" 54# ST&C casing, set @ 200'.
4. Cemented w/175 sx Class "B" w/3% ClCl2 & 1/4 ppsk flocele, good rets. Plug down @ 7:00 P.M. 12/14/86. WOC 6 hrs. NU flowline.
5. Drilling ahead w/12-1/4" bit @ 240', 6:00 A.M. 12/15/86.

RECEIVED
DEC 17 1986DIVISION OF
OIL, GAS & MINING

18. I hereby certify that the foregoing is true and correct

SIGNED

Jack H. WhiteTITLE District Drilling SuptDATE 12/15/86

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

122917

RECEIVED
DEC 24 1986

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
3 TRIAD CENTER, SUITE 350
SALT LAKE CITY, UT 84180-1203

DIVISION OF
OIL, GAS & MINING

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number FEDERAL #1-25 4303731294
1616 Glenarm Pl, Ste 2600
 Operator Santa Fe Energy operating Address Denver, CO 80202
Partners, L.P. 1670 Broadway, Ste 3400
 Contractor Exeter Drilling Co. Address Denver, CO 80217
 Location NE 1/4 NW 1/4 Sec. 25 T. 38S R. 25E County San Juan

Water Sands

	<u>Depth</u>		<u>Volume</u>	<u>Quality</u>
	From	To	Flow Rate or Head	Fresh or Salty
1.	at 3600'		1" stream	salty
2.				
3.				
4.				
5.				

(Continue on reverse side if necessary)

Formation Tops Hermosa top @ 4382' (water flow out of DeChelly).

Remarks

NOTE: (a) Report on this form as provided for in Rule 806, Oil and Gas Conservation General Rules.

(b) If a water analysis has been made of the above reported zone, please forward a copy along with this form.

No report. Checked by mud engineer. Chlorides 16,000 ppm
Calcium 4,600 ppm

John McArthur

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN TRIPLICATE

7 INSTRUCTIONS ON
REVERSE SIDE

012113

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NO. U-56534
2. NAME OF OPERATOR SANTA FE ENERGY OPERATING PARTNERS, L.P.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR 1616 Glenarm Place, Ste 2600, Denver, CO 80202		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 1400' FSL & 1150' FEL, Section 25		8. FARM OR LEASE NAME FEDERAL
14. PERMIT NO. 43-037-31294		9. WELL NO. #1-25
15. ELEVATIONS (Show whether OF, AT, OR, etc.) 5066' Ground		10. FIELD AND POOL, OR WILDCAT S.E. Tincup
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec 25 T38S-R25E
		12. COUNTY OR PARISH San Juan
		13. STATE Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

1. Drill 12-1/4" hole to 2000' - 1° @ 1969'.
2. Ran 47 jts 8-5/8" 24# ST&C K-55 csg, set @ 1999' KB.
3. Cmt w/Dowell using 3 centralizers, guide shoe, insert float & top plug - 770 sx lightwater cmt w/2% CaCl₂ & 1/4 ppsk flocele, tail in w/200 sx Cl 'B' w/2% CaCl₂ & 1/4 ppsk flocele & flush w/ 122 BW. PD @ 9:00 AM 12/17.
4. WOC 8 hrs, cut off & weld on 8-5/8" x 11" x 3000 psi head. NU BOP's. Test blind rams, manifold & all valves to 2000 psi. Test hydrill to 1500 psi, test pipe rams & csg to 1000 psi.
5. Drill out w/7-7/8" bit to 5791' - to Salt. Encountered waterflow. Shut well in. DP SI press @ 3500 psi. Let flow go on annulus.
6. Drill collars & drill pipe stuck.
7. Pump in 20 ppg mud. Install TIW valve, still flowing. RU Howco, shot out bit jets.

(continued on back)

18. I hereby certify that the foregoing is true and correct

SIGNED

John G. McCatharn

TITLE Sr. Drilling Engineer

DATE 1/6/87

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

ACCEPTED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

DATE: 1-20-87

BY: John R. Bayne

*See Instructions on Reverse Side

012113

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. U-56534
2. NAME OF OPERATOR SANTA FE ENERGY OPERATING PARTNERS, L.P.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
3. ADDRESS OF OPERATOR 1616 Glenarm Place, Ste 2600, Denver, CO 80202		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 1400' FSL & 1150' FEL, Section 25		8. FARM OR LEASE NAME FEDERAL
14. PERMIT NO. 43-037-31294		9. WELL NO. #1-25
15. ELEVATIONS (Show whether of, ft., gr., etc.) 5066' Ground		10. FIELD AND POOL, OR WILDCAT S.E. Tincup
16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec 25 T38S-R25E
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)		12. COUNTY OR PARISH San Juan
		13. STATE Utah

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐(Other) ☐PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐ABANDON* ☒CHANGE PLANS ☐

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐FRACTURE TREATMENT ☐SHOOTING OR ACIDIZING ☐(Other) ☐REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT* ☒

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

1. Drill 12-1/4" hole to 2000' - 1° @ 1969'.
2. Ran 47 jts 8-5/8" 24# ST&C K-55 csg, set @ 1999' KB.
3. Cmt w/Dowell using 3 centralizers, guide shoe, insert float & top plug - 770 sx lightwater cmt w/2% CaCl2 & 1/4 ppsk flocele, tail in w/200 sx Cl 'B' w/2% CaCl2 & 1/4 ppsk flocele & flush w/ 122 BW. PD @ 9:00 AM 12/17.
4. WOC 8 hrs, cut off & weld on 8-5/8" x 11" x 3000 psi head. NU BOP's. Test blind rams, manifold & all valves to 2000 psi. Test hydrill to 1500 psi, test pipe rams & csg to 1000 psi.
5. Drill out w/7-7/8" bit to 5791' - to Salt. Encountered waterflow. Shut well in. DP SI press @ 3500 psi. Let flow go on annulus.
6. Drill collars & drill pipe stuck.
7. Pump in 20 ppg mud. Install TIW valve, still flowing. RU Howco, shot out bit jets.

(continued on back)

18. I hereby certify that the foregoing is true and correct

SIGNED

John G. McCatharn

TITLE Sr. Drilling Engineer

DATE 1/6/87

(This space for Federal or State office use)

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED BY THE STATE
OF UTAH DIVISION OF
OIL, GAS, AND MINING

DATE: 1-20-87

BY: John R. Bay

*See Instructions on Reverse Side

Instructions

General: This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

8. RU Blue Jet Wireline. WOC to arrive from Halliburton.
9. Cmt w/1200 sx, no rets. Displace w/70 bbls of mud 1600 psi to approx. 5000'.
10. WOC & WO temperature survey truck. Try to bleed back DP pressure.
HU Halliburton & still would not bleed off. Pump 19 bbls mud dn DP w/1900 psi.
11. Shut in & WOC.
12. RU & HU to run temperature survey. Top of cmt @ 2400'. Tag cmt in DP @ 4994'. Press tested DP to 3000 psi, 15 mins, o.k.
13. RU Homco. Ran free-point back off @ 1895'.
14. PU Halliburton cmt retainer, set @ 1732'. Could not pump in below retainer @ 2000 psi.
15. RU Halliburton & cmt 1732' to surface.
16. LDDP, ND & clean pits. Cut off head. Install dry hole marker.
Released rig @ 10:00 A.M. 1/2/87.
17. No cores, DST's or logs run.

RECEIVED

JAN 26 1987

DIVISION OF
OIL, GAS & MINING

IGT

SANTA FE ENERGY COMPANY
FEDERAL #1-25
SEC. 25, T38S-R25E
SAN JUAN COUNTY, UTAH

4303731299

INTERMOUNTAIN GEO-TECH, INC.
P. O. BOX 158
DELTA, CO 81416
303-874-7762

SANTA FE ENERGY COMPANY
FEDERAL #1-25
SEC. 25, T38S-R25E
SAN JUAN COUNTY, UTAH

TABLE OF CONTENTS

1. SUMMARY OF DAILY ACTIVITY	1
2. BIT RECORD	2
3. DEVIATION SHEET	3
4. SHOW SHEETS	4-8

DRILLING CONTRACTOR:	EXETER RIG #68 DENVER, CO
DRILLING FOREMAN:	MR. BOB REIGAN
PUSHER:	MR. CURLEY TETER
GEO TECHNOLOGISTS:	MR. NICK LARKIN - MR. JUSTIN ARO INTERMOUNTAIN GEO-TECH, INC. P. O. BOX 158 DELTA, CO 81416
DRILLING FLUID:	H & W DRILLING FLUID FARMINGTON, NEW MEXICO
WIRE LINE:	MR. CHRISTENSEN HOMCO FARMINGTON, NEW MEXICO
WELL CONTROL & CEMENTING:	MR. CLYDE LASSTER - MR. KEITH SMITH HALLIBURTON FARMINGTON, NEW MEXICO

SANTA FE ENERGY COMPANY
FEDERAL #1-25
SEC. 25, T38S-R25E
SAN JUAN COUNTY, UTAH

SUMMARY OF DAILY ACTIVITY

DATE	ACTIVITY	MIDNITE DEPTH	24 HOUR FOOTAGE
12/17/86	IGT UNIT #1 ON LOCATION, RIGGED UP,	2000'	--
12/18/86	WORKING ON BOP, DRLG, SURV, DRLG	2000'	565'
12/19/86	DRLG, SURV, DRLG, SURV, DRLG	2565'	1180'
12/20/86	DRLG, SURV, DRLG	3745'	534'
12/21/86	DRLG, TOH NB #7, TIH DRLG, SURV	4279'	245'
12/22/86	DRLG, SURV, DRLG	4524'	251'
12/23/86	DRLG, SURV, DRLG	4775'	219'
12/24/86	DRLG, TOH NB #8	4994'	170'
12/25/86	TIH, DRLG	5164'	193'
12/26/86	DRLG, SURV	5357'	186'
12/27/86	DRLG	5543'	225'
12/28/86	DRLG, WELL BLEW OUT @ 2:50 A.M., MIX BARITE	5768'	23'
12/29/86	MIX MUD, RIG UP HALLIBURTON, PUMP 20.1# MUD DOWN, DRILL PIPE(75 BBLS), STAB T.I.W. VALVE, MIX MUD, RIG UP HOMCO TO SHOOT JETS, SHOT CHARGE ON BIT, LOST 5 SPUD BARS, WAIT ON OVERSHOT, FISH SPUD BARS, RIG UP TO KILL ANNULUS, MIX MUD, SHUT IN WELL W/1700 PSI ON CSG,PUMP 282 BBLS 18.7# MUD, SHUT IN W/375 PSI ON CSG, MIX BARITE	5791'	--
12/30/86	MIX BARITE, PUMP 173 BBLS 17# MUD, SHUT IN W/200 PSI ON CSG, W.O.O., W.O. CEMENT TO ARRIVE	—	—
12/31/86	WAIT ON CEMENT, PUMP CEMENT, LEAVE WELL SHUT IN FOR 10 HRS, RIG UP BLUEJET FOR TEMP LOG, RUN LOG, IGT UNIT #1 RELEASED	--	--

SANTA FE ENERGY COMPANY
 FEDERAL #1-25
 SEC. 25, T38S-R25E
 SAN JUAN COUNTY, UTAH

BIT RECORD

BIT	MAKE	SIZE	TYPE	DEPTH OUT	FOOTAGE USED	HOURS
1	HTC	9 7/8"	R1 (RR)	48'	48'	2½
2	HTC	11 "	J-22 (RR)	80'	32'	3
3	HTC	17½ "	OSC (RR)	123'	43'	7
4	HTC	17½ "	OSC (RR)	200'	77'	3 3/4
5	SEC	12¼ "	S84F	2000'	1800'	37¼
6	SEC	7 7/8 "	S84F	4334'	2334'	68
7	SEC	7 7/8 "	S84F	5164'	830'	79
8	HTC	7 7/8 "	J22	5791'	627'	70¼

SANTA FE ENERGY COMPANY
FEDERAL #1-25
SEC. 25, T38S-R25E
SAN JUAN COUNTY, UTAH

DEVIATION SHEET FOR WELL. . .

<u>DEPTH</u>	<u>DEVIATION (DEV)</u>
160'	$3/4^{\circ}$
435'	$\frac{1}{4}^{\circ}$
643'	$\frac{1}{4}^{\circ}$
1170'	$\frac{1}{2}^{\circ}$
1589'	1°
1964'	1°
2451'	$1\frac{1}{2}^{\circ}$
3451'	$1\frac{1}{4}^{\circ}$
3951'	$\frac{1}{2}^{\circ}$
4298'	$3/4^{\circ}$
4826'	$3/4^{\circ}$
5323'	1°

COMPANY SANTA FE ENERGY COMPANY

WELL NO. FEDERAL #1-25

LOCATION _____

ZONE OF INTEREST NO. 1

INTERVAL: From 5373' To 5376'

DRILL RATE: Abv 8-9 min/ft Thru 5 min/ft Below 8-9 min/ft

MUD GAS-CHROMATOGRAPH DATA

	TOTAL	C ₁	C ₂	C ₃	C ₄	C ₅	OTHER
Before	8 U	.07%	.04%	.02%	Ø		
During	136 U	.7 %	.2 %	.1 %	.05%		
After	10-12 U	.09%	.05%	.025%	tr		

Type gas increase: Gradual ☐ Sharp ☒ SPIKE

Gas variation within zone: Steady ☒ Erratic ☐ Increasing ☐ Decreasing ☐

CARBIDE HOLE RATIO: $\frac{\text{GRAMS}}{\text{READING}}$ X Min. in Peak = _____ Sensitivity: Poor ☐ Fair ☒ Good ☐

FLUO: Mineral ☒ Even ☒ Spotty ☐ CUT: None ☒ Streaming
None ☐ % in total sample 60% Poor ☐ Slow ☐
Poor ☐ % in show lithology Dull Yel Fair ☐ Mod ☐
Fair ☐ COLOR: _____ Good ☐ Fast ☐
Good ☐ COLOR: _____

STAIN: None ☒ Poor ☐ Fair ☐ Good ☐ Live ☐ Dead ☐ Residue ☐ Even ☐ Spotty ☐ Lt. ☐ Dk. ☐

POROSITY: Poor ☐ Fair ☒ Good ☐ Kind INTXL

LITHOLOGY DOL-CRM-TAN MICKL-VFXL GRAN IP CLN-SL SLTY ANHY IP P-OCC F VIS Ø

SAMPLE QUALITY Very Good

NOTIFIED Mike Dilli @ 7:00 A.M. HRS. DATE: 12/26/86

REMARKS Just above top of Paradox shale

ZONE DESCRIBED BY Justin Aro

COMPANY SANTA FE ENERGY COMPANY

WELL NO. FEDERAL #1-25

LOCATION _____

ZONE OF INTEREST NO. 2

INTERVAL: From 5561' To 5579'

DRILL RATE: Abv 6 min/ft Thru 4-4½ min/ft Below 6½ min/ft

MUD GAS-CHROMATOGRAPH DATA

	TOTAL	C ₁	C ₂	C ₃	C ₄	C ₅	OTHER
Before	6 U	.04%	.02%	tr	--	--	--
During	27 U	.15%	.10%	.05%	.01%	--	--
After	23 U	14%	.09%	.05%	.01%	.01%	--

Type gas increase: Gradual ☒ Sharp ☐

Gas variation within zone: Steady ☐ Erratic ☒ Increasing ☐ Decreasing ☐

CARBIDE HOLE RATIO: GRAMS
READING X Min. in Peak = _____ Sensitivity: Poor ☐ Fair ☐ Good ☐

FLUO: Mineral ☐ Even ☒ Spotty ☐ CUT: None ☒ Streaming
None ☐ % in total sample low (less 10%) Poor ☐ Slow ☐
Poor ☒ Fair ☐ Mod ☐
Fair ☐ % in show lithology _____ Good ☐ Fast ☐
Good ☐ COLOR: med vel COLOR: _____

STAIN: None ☒ Poor ☐ Fair ☐ Good ☐ Live ☐ Dead ☐ Residue ☐ Even ☐ Spotty ☐ Lt. ☐ Dk. ☐

POROSITY: Poor ☒ Fair ☒ Good ☐ Kind _____

LITHOLOGY 80% LS-GYBRN WH, GY-WH, GYBRN, BUFF TAN 20% DOL

SAMPLE QUALITY Good

NOTIFIED Mike Dilli @ 7:00 A.M. HRS. DATE: 12/27/86

REMARKS _____

ZONE DESCRIBED BY Nick Larkin

COMPANY SANTA FE ENERGY COMPANY

WELL NO. FEDERAL #1-25

LOCATION _____

ZONE OF INTEREST NO. 3

INTERVAL: From 5647' To 5653'

DRILL RATE: Abv 6-6½ min/ft Thru 4 min/ft Below 6½ min/ft

MUD GAS-CHROMATOGRAPH DATA

	TOTAL	C ₁	C ₂	C ₃	C ₄	C ₅	OTHER
Before	34 U	0.17%	0.11%	0.07%	tr	--	--
During	118U	0.65%	0.42%	0.27%	0.07%	--	--
After	43 U	0.20%	0.14%	0.09%	tr	--	--

Type gas increase: Gradual ☐ Sharp ☒

Gas variation within zone: Steady ☐ Erratic ☒ Increasing ☐ Decreasing ☐

CARBIDE HOLE RATIO: $\frac{\text{GRAMS}}{\text{READING}}$ X Min. in Peak = _____ Sensitivity: Poor ☐ Fair ☐ Good ☐

FLUO: Mineral ☐ Even ☐ Spotty ☐
None ☒ % in total sample _____
Poor ☐
Fair ☐ % in show lithology _____
Good ☐ COLOR: _____

CUT: None ☒ Streaming
Poor ☐ Slow ☐
Fair ☐ Mod ☐
Good ☐ Fast ☐
COLOR: _____

STAIN: None ☒ Poor ☐ Fair ☐ Good ☐ Live ☐ Dead ☐ Residue ☐ Even ☐ Spotty ☐ Lt. ☐ Dk. ☐

POROSITY: Poor ☒ Fair ☐ Good ☐ Kind _____

LITHOLOGY 70% DOL-DKBRN, LTBRN, SDY, LMY IP 30% LS-LTBRN. BUFE. BRN BUFE WH

CRPXLN

SAMPLE QUALITY Good

NOTIFIED Mike Dilli @ _____ HRS. DATE: 7-27-86

REMARKS NFCOS

ZONE DESCRIBED BY Nick Larkin

COMPANY SANTA FE ENERGY COMPANY
WELL NO. FEDERAL #1-25
LOCATION _____

ZONE OF INTEREST NO. 4

INTERVAL: From 5679' To 5683'

DRILL RATE: Abv 6½ min/ft Thru 3.5 min/ft Below 6½ min/ft

MUD GAS-CHROMATOGRAPH DATA

	TOTAL	C ₁	C ₂	C ₃	C ₄	C ₅	OTHER
Before	31 U	.20%	.12%	.07%	tr	--	--
During	220 U	1.30%	.85%	.50%	.20%	--	--
After	50 U	.30%	.21%	1.25%	.06%	--	--

Type gas increase: Gradual ☐ Sharp ☒

Gas variation within zone: Steady ☐ Erratic ☒ Increasing ☐ Decreasing ☐

CARBIDE HOLE RATIO: GRAMS
READING X Min. in Peak = _____ Sensitivity: Poor ☐ Fair ☐ Good ☐

FLUO: Mineral ☐ Even ☐ Spotty ☐
None ☒ % in total sample none
Poor ☐
Fair ☐ % in show lithology _____
Good ☐ COLOR: none

CUT: None ☒ Streaming
Poor ☐ Slow ☐
Fair ☐ Mod ☐
Good ☐ Fast ☐
COLOR: _____

STAIN: trace
None ☒ Poor ☐ Fair ☐ Good ☐ Live ☐ Dead ☒ Residue ☐ Even ☐ Spotty ☐ Lt. ☐ Dk. ☐

POROSITY: Poor ☒ Fair ☒ Good ☐ Kind (3-12%) MICXLN-CRPLXN-VFXLN

LITHOLOGY 20% LS-GYWH, GYBRN, BRN, BUFF TAN 80% DOL-GY-BRN SDY LMY (GYWHBRN) SLTY

SAMPLE QUALITY Good

NOTIFIED Mike Dilli @ _____ HRS. DATE: 12/27/86

REMARKS Air dried sample revealed v fnt v dull vel-orne flr. tr pos tan o
stn, v wk mky cut

ZONE DESCRIBED BY Nick Larkin

COMPANY SANTA FE ENERGY COMPANY

WELL NO. FEDERAL #1-25

LOCATION _____

ZONE OF INTEREST NO. 5

INTERVAL: From 5710' To 5724'

DRILL RATE: Abv 6 min/ft Thru 5-5½ min/ft Below 6-6½ min/ft

MUD GAS-CHROMATOGRAPH DATA

	TOTAL	C ₁	C ₂	C ₃	C ₄	C ₅	OTHER
Before	44 U	.30%	.21%	.11%	.05%	--	
During	57 U	.41%	.28%	.14%	.1 %	--	
After	42 U	.26%	.18%	.09%	.06%	--	

Type gas increase: Gradual ☒ Sharp ☐

Gas variation within zone: Steady ☒ Erratic ☐ Increasing ☐ Decreasing ☐ (non-spike, hump)

CARBIDE HOLE RATIO: GRAMS
READING X Min. in Peak = _____ Sensitivity: Poor ☐ Fair ☐ Good ☐

FLUO: Mineral ☐ Even ☐ Spotty ☐ CUT: None ☐ Streaming
None ☒ % in total sample none Poor ☒ Slow ☒
Poor ☐ % in show lithology none Fair ☒ Mod ☐
Fair ☐ COLOR: _____ Good ☐ Fast ☐
Good ☐ COLOR: blu vel

STAIN: None ☐ Poor ☐ Fair ☐ Good ☐ Live ☐ Dead ☒ Residue ☐ Even ☐ Spotty ☒ Lt. ☐ Dk. ☒

POROSITY: Poor ☒ Fair ☐ Good ☐ Kind INTXL & PINPOINT VUG

LITHOLOGY DOL-MED-DK BRN-GYBRN MOT W/BLK & WH ORG & ANHY INCL VF-CRPXLN SL ARG

M SLTY IPM -V LMY P INTXL Ø TR VUG PCR ALG APP IP SAMPLE QUALITY Fair

NOTIFIED Mike Dilli @ _____ HRS. DATE: 12/27/86

REMARKS Cut showed up only in day old air dried sample - slow mkv stmg cut

ZONE DESCRIBED BY Justin Aro

Drill

RECEIVED
FEB 02 1987

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
3 TRIAD CENTER, SUITE 350
SALT LAKE CITY, UT 84180-1203

DIVISION OF
OIL, GAS & MINING

020605

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well Name & Number Federal #1-25 43-037-31294
Operator Santa Fe Energy Operating Partners, L.P. Address 1616 Glenarm Pl, Ste 2600
Denver, CO 80202
Contractor Exeter Drilling Company Address 1670 Broadway, Ste 3400
Denver, CO 80217
Location NE 1/4 NW 1/4 Sec. 25 T. 38S R. 25E County San Juan

Water Sands

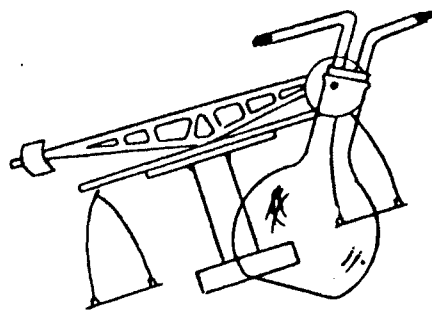
<u>Depth</u>		<u>Volume</u>	<u>Quality</u>
From	To	Flow Rate or Head	Fresh or Salty
1.	5791' - 5791'	4" stream (high pressure)	Salty (analysis attached)
2.			
3.			
4.			
5.			

(Continue on reverse side if necessary)

Formation Tops

Upper Ismay 5424', Lower Ismay 5602', Upper Desert Creek 5672',
Remarks Lower Desert Creek 5702', Salt 5791'.

- NOTE: (a) Report on this form as provided for in Rule 806, Oil and Gas Conservation General Rules.
- (b) If a water analysis has been made of the above reported zone, please forward a copy along with this form.



Ford Chemical

LABORATORY, INC.

Bacteriological and Chemical Analysis

40 WEST LOUISE AVENUE

SALT LAKE CITY, UTAH 84115

PHONE 466-8761

W. C. L. H. S. Ford
San Juan County, Utah
RKY MIN DIST. 2700 DEP

JAN 16 1987

RECEIVED
FEB 02 1987

DIVISION OF
OIL, GAS & MINING

DATE: 01/12/87

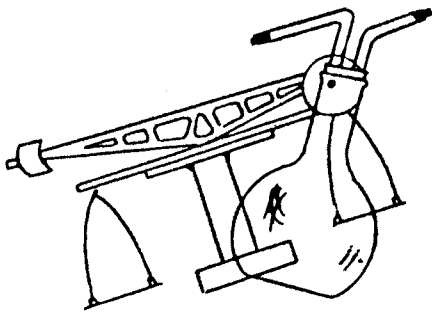
CERTIFICATE OF ANALYSIS

SANTA FE ENERGY CO.
% JOHN MCCATHARN
1616 GLENARM PL#2600
DENVER, CO 80202

87-008693

SAMPLE: WELL WATER SAMPLE FROM WELL 1-25 (SEC. 25 T38S R25E)
SANTA FE ENERGY RESERVE PIT COLLECTED BY MCCLURE OF BLM
RECEIVED 1-2-87 FOR COMPLETE ANALYSIS.

Alkalinity, CaCO ₃ mg/l SM403	308	Ammonia, NH ₃ -N mg/l SM417F	2.12
Arsenic, As mg/l SM304	.051	Barium, Ba mg/l SM303C	.62
Bicarbonate, HCO ₃ mg/l SM403	375.80	Boron as B mg/l SM 404A	.140
Cadmium, Cd mg/l SM304	.024	Calcium, Ca mg/l SM303A	64,500.00
Carbonate as CO ₃ mg/l SM403	<.10	Chloride, Cl mg/l SM407A	166,000
Chromium as Cr Hex. mg/l SM3	.003	Chromium, Cr (Tot) mg/l SM30	.500
Conductivity umhos/cm SM205	199,999	Copper, Cu mg/l SM303A	.32
Fluoride, F mg/l SM413B	2.55	Hardness, CaCO ₃ mg/l SM314B	27,960
Hydroxide as OH mg/l SM 403	<.10	Iron, Fe (Dis) mg/l SM303A	.81
Iron, Fe (Tot) mg/l SM303A	1.01	Lead, Pb mg/l SM304	.110
Magnesium, Mg mg/l SM303A	9,000.00	Manganese, Mn mg/l SM303A	2.97
Mercury, Hg mg/l SM320A	<.0002	Nickel, Ni mg/l SM303A	<.01
Nitrate, NO ₃ -N mg/l SM418C	.64	Nitrite as NO ₂ -N mg/l SM419	<.01
Phosphate PO ₄ -P Ortho mg/l	1.25	Potassium, K mg/l SM303A	37,900.00
Selenium, Se mg/l SM304	.013	Silica SiO ₂ (DIS) mg/l SM42	1,250.00



Ford Chemical

LABORATORY, INC.

Bacteriological and Chemical Analysis

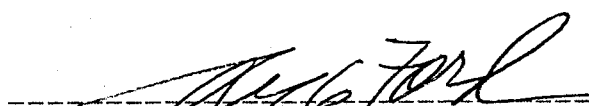
40 WEST LOUISE AVENUE
SALT LAKE CITY, UTAH 84115

PHONE 466-8761

PAGE: 2

CERTIFICATE OF ANALYSIS

Silver, As mg/l SM304	.017	Sodium, Na mg/l SM303A	14,380.00
Sulfate, SO4 mg/l SM426D	35,000	Total Dis. Solids mg/l SM20	347,644
Zinc, Zn mg/l SM303A	.093	pH Units SM423	5.60


FORD CHEMICAL LABORATORY, INC.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

Form approved.
Budget Bureau No. 42-R355.5

other in-
structions on
reverse side)

5. LEASE DESIGNATION AND SERIAL NO.

56534

INDIAN, ALLOTTEE OR TRIBE NAME

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☒ Other ☐ JUL 5 1988

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other ☐ DIVISION OF OIL, GAS & MINING

2. NAME OF OPERATOR
SANTA FE ENERGY OPERATING PARTNERS, L.P.

3. ADDRESS OF OPERATOR
1616 Glenarm Place, Ste 2600, Denver, CO

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface 1400' FSL & 1150' FEL

At top prod. interval reported below

At total depth 5791'

14. PERMIT NO. 43-037-31294 DATE ISSUED

15. DATE SPUDDED 12/12/86 16. DATE T.D. REACHED 12/28/86 17. DATE COMPL. (Ready to prod.) 1/2/87 18. ELEVATIONS (DF, RKB, RT, CR, ETC.)* 5066' Ground

20. TOTAL DEPTH, MD & TVD 5791' 21. PLUG, BACK T.D., MD & TVD N/A 22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY XX

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*
N/A Well plugged and abandoned

26. TYPE ELECTRIC AND OTHER LOGS RUN None HJO

27. WAS WELL CORED No

CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT, LB/FT	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8"	54#	200'	17-1/2"	175 sx C1 B w/add	None
8-5/8"	24#	1999'	12-1/4"	970 sx	None

LINER RECORD				TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
N/A		FILE		N/A		

31. PERFORATION RECORD (Interval, size and number)

No perforations

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DATE FIRST PRODUCTION N/A PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)

WELL STATUS (Producing or shut-in) Plugged/Abandoned

DATE OF TEST HOURS TESTED CHOKE SIZE PROD'N. FOR TEST PERIOD OIL—BBL. GAS—MCF. WATER—BBL. GAS-OIL RATIO

FLOW. TUBING PRESS. CASING PRESSURE CALCULATED 24-HOUR RATE OIL—BBL. GAS—MCF. WATER—BBL. OIL GRAVITY-API (CORR.)

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED John S. McCatharn TITLE Sr. Drilling Engineer DATE 1/6/87

*(See Instructions and Spaces for Additional Data on Reverse Side)

RECEIVED

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES:

SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORDED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND ENCOUNTERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	GEOLOGIC MARKERS		TRUE VERT. DEPTH
				NAME	MEAS. DEPTH	
				U. Ismay	5424'	
				Hoverweep Sh	5578'	
				L. Ismay	5602'	
				Gothic Shale	5652'	
				U. Desert Creek	5672'	
				L. Desert Creek	5702'	

OIL AND GAS	
DRN	RJF
JRB	GLH
DTS	SLS
1-TAS	
	3-ASTC
2-	MICROFILM ✓
4-	FILE